

**REMARKS/ARGUMENTS**

This Response is submitted in complete response to the Office Action dated September 6, 2006. Applicants respectfully note that the PTOL 326 incorrectly states that this Office Action is a final rejection. In fact the text of the Office Action correctly notes that the Office Action is a non-final rejection based on the RCE Request. It is requested that the Examiner issue a corrected PTOL-326 reflecting the correct status of the case.

Prior to specifically addressing the outstanding rejections Applicants note that the claims have been amended to only claim hT2R76 variants that encode hT2R76 polypeptides having at least 95% sequence identity to SEQ ID NO:2 or sequences which hybridize to SEQ ID NO:1 under defined stringent binding conditions AND which encode a polypeptide that specifically binds to the T2R76 polypeptide contained in SEQ ID NO:2. This is consistent with the scope of protection allowed by the Board of Appeals in another application, US Serial No. 09/825,882 directed to a hT2R bitter taste receptor now patented. This amendment is made without prejudice. Additionally, clause (iv) of previous claim 68 (now claim 93) has been deleted without prejudice and claims 94-95 are consistent with added claim 93.

Turning now to the rejections made in the outstanding Office Action, Claims 68-92 are rejected under 35 USC 101 as assertedly lacking proof of utility. This rejection is overcome based on the submission of Figure 2 referred to in the Affidavit (previously presented) by Dr. Zoller. As attested to therein, this data (contained in Figure 2) substantiates that hT2R76 is a bitter taste receptor as correctly disclosed in the as-filed specification and specifically responds to bitter ligands (brucine and PROP). As indicated previously, PROP is among the bitter ligands disclosed in the as-filed specification that was indicated to be a ligand that potentially would

specifically activate hT2R76. Indeed this ligand is sometimes referred to as a universal bitter ligand based on the fact that numerous isolated hT2Rs bind to and functionally respond to this ligand.

Based on this functional data and the prior submitted Board of Appeals Decision the utility rejection should be vacated because the inventors have demonstrated that hT2R76 is a bitter taste receptor that specifically binds bitter ligands including one enumerated in this application. Additionally, the claims are commensurate in scope with claims previously found patentable by the Patent Office as evidenced by the prior submitted Board of Appeals Decision (in 09/825,882). Based on the limitation of the claims to sequences encoding polypeptides which are at least 95% identical to SEQ ID NO:2 the fact pattern of this and the '882 application are substantially the same. Applicants also note that the same functional data contained in Figure 2 is contained in a CIP of this application. If the Examiner elects to maintain this rejection it is respectfully submitted that he telephone the undersigned as Applicants would then wish to schedule a personal interview to expedite prosecution.

Previous claims 68-92 were further rejected under 35 USC 112 first paragraph as lacking enablement based on the teachings of the application. This rejection is predicated on essentially the same reasoning as the 101 utility rejection, i.e., that the inventors have not established that the claimed hT2R76 sequence encodes a functional taste receptor, and even if so, that the claims are allegedly broader than the enabling disclosure based on the genus of hT2R76 variants encompassed by the claims.

This rejection is not applicable to the current claims. First, the exemplified and claimed hT2R76 sequence encodes a functional taste receptor as evidenced by the functional data contained in Figure 2 which is also contained in the CIP of this application.

Secondly, the claims have been narrowed to expedite prosecution and now only encompass sequences encoding sequences having at least 95% sequence identity to SEQ ID NO:2 or which hybridize to SEQ ID NO:1 under stringent defined conditions and which encode a bitter taste receptor that responds to a bitter ligand bound by SEQ ID NO:2 (native hT2R76 sequence) . As noted above, this is consistent with the scope of allowable claims in 09/825,882. Absent a reasonable basis to conclude otherwise the 112 enablement rejection must be vacated.

Previous Claims 68-92 also were rejected under 35 USC 112 first paragraph as allegedly violating the written description requirement. The reasoning again is similar to the utility rejection, i.e., that the inventors allegedly were not in possession of the invention as set forth in claims 68-92 absent proof that the exemplified hT2R76 encodes a functional taste receptor and because Applicants' specification allegedly would not place a skilled artisan in possession of the genus of hT2R76 variants encompassed by the claims. This rejection also should be vacated based ion the functional data in Figure 2 and in the CIP of this application evidencing that the hT2R76 sequence in SEQ ID NO:1 encodes a functional bitter taste receptor that responds to bitter ligands including brucine and PROP as correctly disclosed in the as-filed application.

Also, with respect to the claimed genus of variants Applicants respectfully submit that the rejection should be vacated since the scope of the claims is entirely consistent with that allowed in US Serial No. 09/825,882 for another human taste receptor based on an analogous set of facts.

Based on this functional data, and based on the revised scope of the newly submitted claims, the prior §112 written description and enablement rejections should be vacated.

The reasoning of the Board's reversal of the Examiner's rejections therein are directly on point to the rejections made in the present application.

Based on the foregoing, withdrawal of the prior §112 rejections is respectfully requested.

Previous claims 77-79 and 81-83 also were rejected under 35 USC first paragraph as allegedly containing new matter. This rejection is not applicable to the new claims.

Previous claims 68-92 were also rejected under 35 USC 112 second paragraph. This rejection is not applicable to the current claims which do not recite "contained in" or "at least 95-99 % identity" nor do they suffer from improper claim dependency problems. Withdrawal of this rejection is respectfully requested.

Previous claims 68-73 were rejected under 35 USC 102(a). This rejection is overcome by the 131 Affidavit submitted herewith.

Applicants advise that a supplemental §131 Affidavit signed by the inventors excepting Elliot Adler is submitted herein. This Affidavit clearly substantiates that the inventors were in possession of the invention as claimed herein. It should be noted that Elliot Adler signed the Invention Disclosure previously provided and attached thereto and is an inventor of the claims pending in this application. As is proper given the granted 47 Petition in this application the signature of Dr. Adler should not be required under the circumstances.

Withdrawal of this 102 (a) rejection is respectfully requested.

Based on the foregoing this application is believed to be in condition for allowance. A Notice to that effect is respectfully solicited.

If the Examiner has any questions relating to this application, she is respectfully requested to contact the undersigned at 202-419-2018 (direct) or rteskin@hunton.com.

Applicants believe that this response is being submitted timely and that no additional fees are due with the filing hereof. However, in the event a variance exist in the calculations by the U.S. PTO, Applicants hereby authorize the granting of any extension of time, including the appropriate fees as required to enter this response. Please charge or credit any variance of the amount enclosed to our Deposit Account Number 50-0206.

Respectfully submitted,

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By:



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